

PHOS WINDOW

ALUMINUM TUBE MULLION

(WZ3) (IMPACT)

GENERAL NOTES:

- THE PRODUCT SHOWN HEREIN IS DESIGNED AND MANUFACTURED TO COMPLY WITH THE CURRENT EDITION FLORIDA BUILDING CODE (FBC) **EXCLUDING** HVHZ. ALL PRODUCTS UNDER THE SCOPE OF THIS DOCUMENT HAVE BEEN EVALUATED ACCORDING TO THE FOLLOWING:
 - AAMA/WDMA/CSA 101/I.S.2/A440-22
 - ASTM E1886-19
 - ASTM E1996-20
- ADEQUACY OF THE EXISTING STRUCTURAL CONCRETE/MASONRY, 2X AND METAL STUD FRAMING AS A MAIN WIND FORCE RESISTING SYSTEM CAPABLE OF WITHSTANDING AND TRANSFERRING APPLIED PRODUCT LOADS TO THE FOUNDATION IS THE RESPONSIBILITY OF THE ENGINEER OR ARCHITECT OF RECORD FOR THE PROJECT OF INSTALLATION.
- 1X AND 2X BUCKS (WHEN USED) SHALL BE DESIGNED AND ANCHORED TO PROPERLY TRANSFER ALL LOADS TO THE STRUCTURE. BUCK DESIGN AND INSTALLATION IS THE RESPONSIBILITY OF THE ENGINEER OR ARCHITECT OF RECORD FOR THE PROJECT OF INSTALLATION.
- INSTALL INDIVIDUAL INSTALLATION ANCHORS WITHIN A TOLERANCE OF ±1/4 INCH OF THE DEPICTED LOCATION IN THE ANCHOR LAYOUT DETAIL (I.E., WITHOUT CONSIDERATION OF TOLERANCES). TOLERANCES ARE NOT CUMULATIVE FROM ONE INSTALLATION ANCHOR TO THE NEXT.
- THE INSTALLATION DETAILS DESCRIBED HEREIN ARE GENERIC AND MAY NOT REFLECT ACTUAL CONDITIONS FOR A SPECIFIC SITE. IF SITE CONDITIONS CAUSE INSTALLATION TO DEVIATE FROM THE REQUIREMENTS DETAILED HEREIN, A LICENSED ENGINEER OR ARCHITECT SHALL PREPARE SITE SPECIFIC DOCUMENTS FOR USE WITH THIS DOCUMENT.
- APPROVED IMPACT PROTECTIVE SYSTEM **IS NOT REQUIRED** TO PROTECT THIS PRODUCT IN AREAS REQUIRING IMPACT RESISTANCE IN WIND ZONE 3 OR LESS.
- APPROVED IMPACT PROTECTIVE SYSTEM **IS REQUIRED** TO PROTECT THIS PRODUCT IN AREAS REQUIRING IMPACT RESISTANCE IN WIND ZONE 4.
- MATERIAL: ALUMINUM 6063-T5.
- IN ACCORDANCE WITH THE CURRENT FBC, DISSIMILAR METALS INCLUDING FASTENERS SHALL BE PROTECTED FROM GALVANIC CORROSION.
- CUSTOM SIZES AVAILABLE UPON REQUEST. CUSTOM DESIGN PRESSURE WILL BE ASSIGNED EQUAL TO NEXT LARGER STANDARD SIZE.
- MULL ASSEMBLIES ARE QUALIFIED FOR TWO OR MORE UNITS PER OPENING IN THE FOLLOWING CONFIGURATION:
 - "ONE WAY" - RIBBON OR STACKED MULLIONS
 - "TWO WAY" - 'X' OR 'T' MULLIONSSEE SHEET 4 FOR TYPICAL ELEVATION TYPES.

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DESIGN RATING		
MULL SIZE	DESIGN PRESSURE	MISSILE RATING
SEE SHEET 4		LARGE & SMALL MISSILE IMPACT



PHOS WINDOW
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TITLE:
ALUMINUM TUBE MULLION
(WZ3) (IMPACT)

GENERAL NOTES

PREPARED BY:

BUILDING DROPS, INC.
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WEB: www.buildingdrops.com

REMARKS	BY	DATE
NAME CHANGE	HJ	10.2025
2026 FBC UPDATE	LS	07/26

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Reason: I am approving this document
Date: 2026.08.25 10:21:29 -0400'



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1900 NE MIAMI CT., STE. 2-15
MIAMI, FL 33132
FBPE CERT. OF AUTHORIZATION No. 29578

FL #:
FL46574

DATE:
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DWG. BY:
HJ

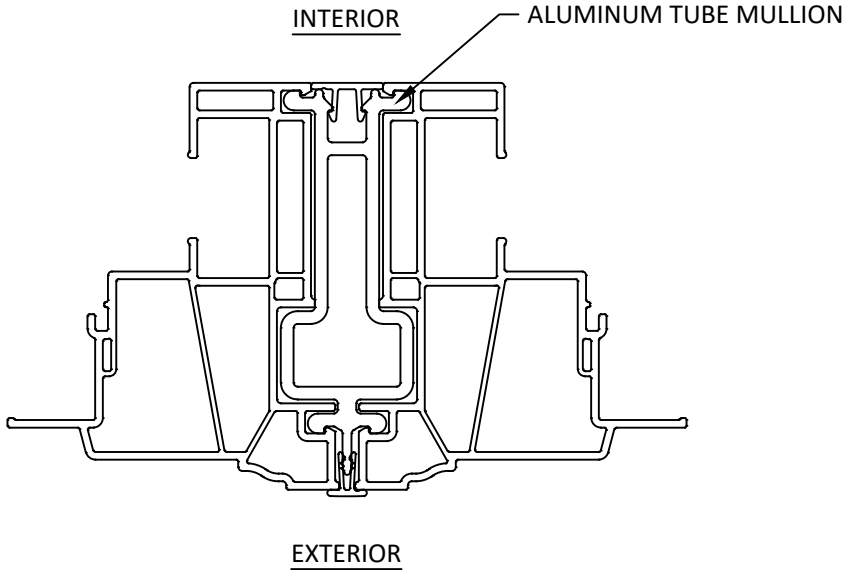
CHK. BY:
HFN

SCALE:
NTS

DWG. #:
PHS009

SHEET:
1

REV.
B



A
2

MULLION SECTION

ALUMINUM MULLION
W/ SINGLE HUNG FRAME



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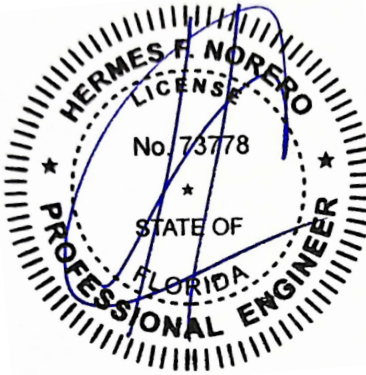
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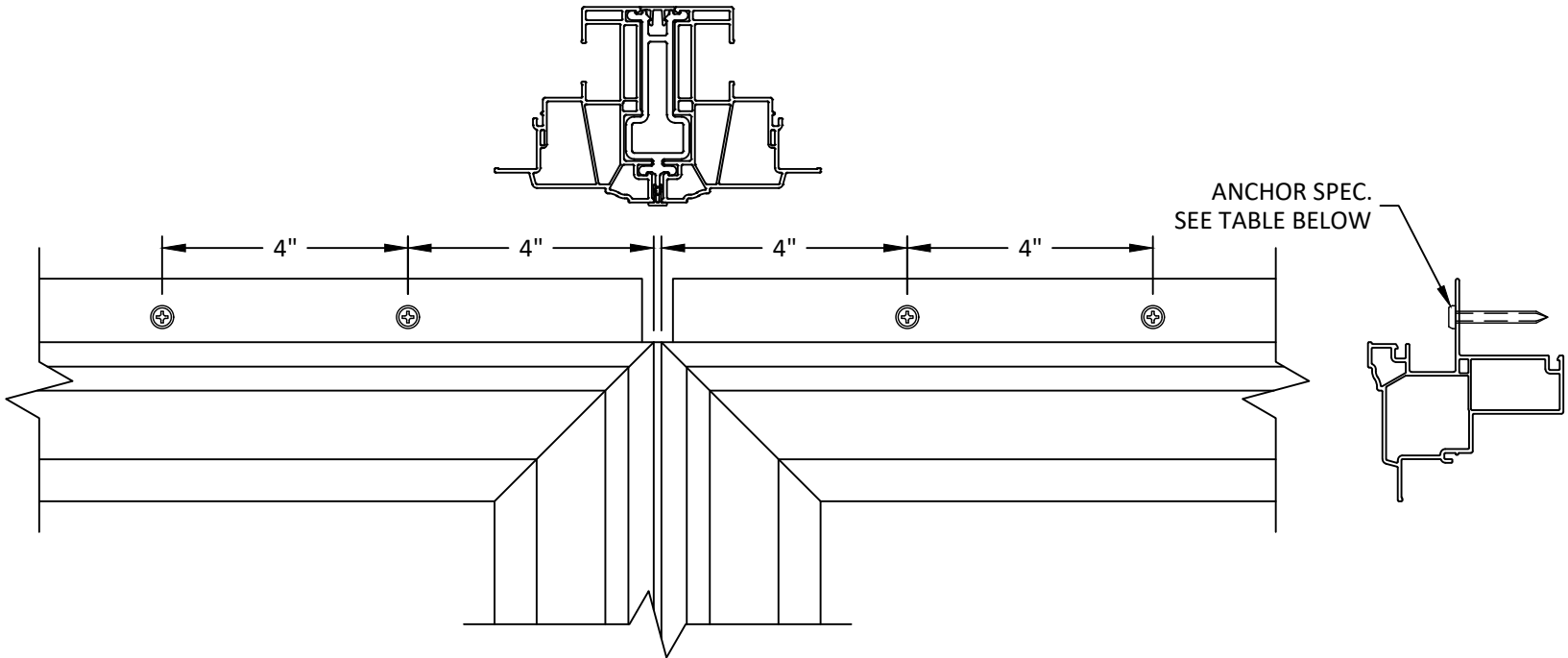
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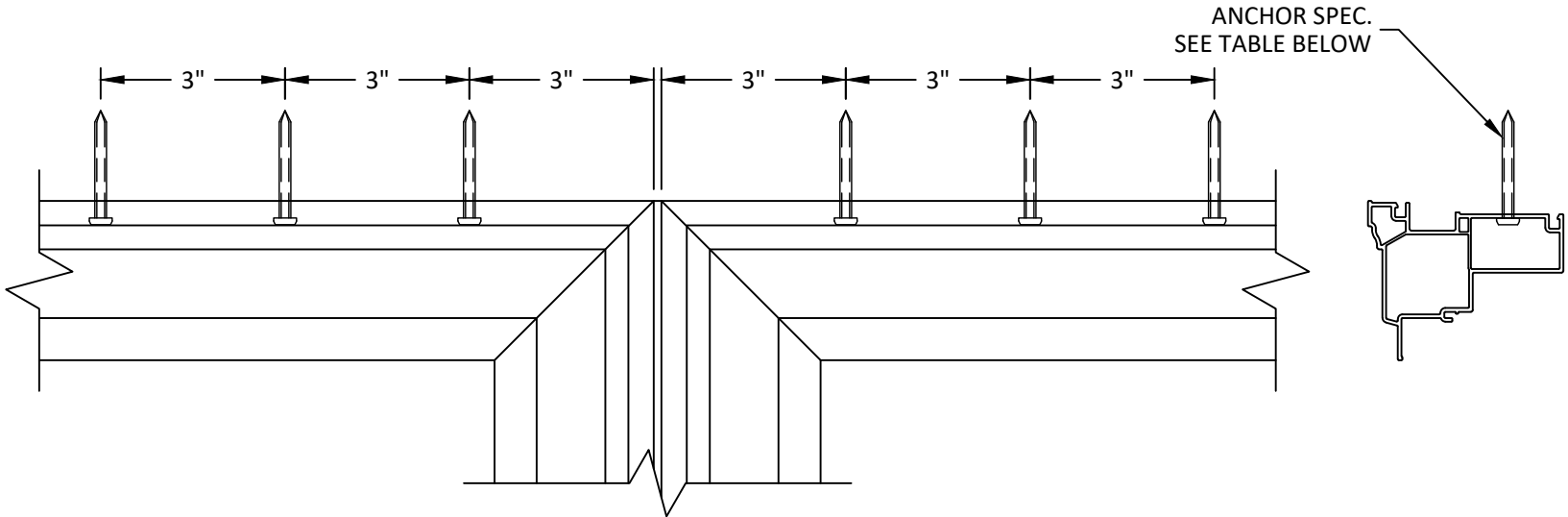
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INSTALLATION NOTES:

- ONE (1) INSTALLATION ANCHOR IS REQUIRED AT EACH ANCHOR LOCATION.
- THE NUMBER OF INSTALLATION ANCHORS DEPICTED IS THE MINIMUM NUMBER OF ANCHORS TO BE USED FOR PRODUCT INSTALLATION OF THE MAXIMUM SIZE LISTED.
- INSTALL INDIVIDUAL INSTALLATION ANCHORS WITHIN A TOLERANCE OF ±1/4 INCH OF THE DEPICTED LOCATION & SPACING IN THE ANCHOR LAYOUT DETAILS (I.E., WITHOUT CONSIDERATION OF TOLERANCES). TOLERANCES ARE NOT CUMULATIVE FROM ONE INSTALLATION ANCHOR TO THE NEXT.
- FOR NAIL FIN INSTALLATION, SHIM AS NEEDED TO ACHIEVE A PLUMB AND SQUARE INSTALLATION. MAXIMUM ALLOWABLE SHIM STACK TO BE 1/4 INCH. SHIM(S) SHALL BE CONSTRUCTED OF HIGH DENSITY PLASTIC OR BETTER.
- FOR THROUGH FRAME INSTALLATION, SHIM AS REQUIRED AT EACH INSTALLATION ANCHOR WITH LOAD BEARING SHIM(S). MAXIMUM ALLOWABLE SHIM STACK TO BE 1/4 INCH. SHIM WHERE SPACE OF 1/16 INCH OR GREATER OCCURS. SHIM(S) SHALL BE CONSTRUCTED OF HIGH DENSITY PLASTIC OR BETTER.
- FOR MASONRY OR CONCRETE OPENINGS, A 1X WOOD BUCK MAY BE USED (OPTIONAL) AS LONG AS THE MINIMUM EMBEDMENT AND EDGE DISTANCE REQUIREMENTS ARE STILL MET WITHIN THE CORRESPONDING HOST SUBSTRATE. SEE GENERAL NOTE #3 ON SHEET 1 FOR MORE INFORMATION.
- MINIMUM EMBEDMENT AND EDGE DISTANCE EXCLUDE WALL FINISHES, INCLUDING BUT NOT LIMITED TO STUCCO, FOAM, BRICK VENEER, AND SIDING.
- INSTALLATION ANCHORS AND ASSOCIATED HARDWARE MUST BE MADE OF CORROSION RESISTANT MATERIAL OR HAVE A CORROSION RESISTANT COATING:
 - FASTENERS USED WITHIN 3,000 FEET OF A SALTWATER COASTLINE AND INSTALLED IN ENCLOSED SPACES SHALL BE GALVANIZED IN ACCORDANCE WITH SECTION 1711.1.1 (E.G., ASTM A153 CLASS D, ASTM A641 CLASS 3S, OR EQUIVALENT CORROSION RESISTANCE).
 - CONNECTORS AND METAL PLATES USED WITHIN 3,000 FEET OF A SALTWATER COASTLINE SHALL BE STANDARD GALVANIZED IN ACCORDANCE WITH SECTION 1711.1.2 (E.G., ASTM A653 G90, ASTM A123, OR PROTECTIVE COATING PER TPI 1).
- FOR HOLLOW BLOCK AND GROUT FILLED BLOCK, DO NOT INSTALL INSTALLATION ANCHORS INTO MORTAR JOINTS. EDGE DISTANCE IS MEASURED FROM FREE EDGE OF BLOCK OR EDGE OF MORTAR JOINT INTO FACE SHELL OF BLOCK.
- INSTALLATION ANCHORS SHALL BE INSTALLED IN ACCORDANCE WITH ANCHOR MANUFACTURER'S INSTALLATION INSTRUCTIONS, AND ANCHORS SHALL NOT BE USED IN SUBSTRATES WITH STRENGTHS LESS THAN THE MINIMUM STRENGTH SPECIFIED BY THE ANCHOR MANUFACTURER.



MULLION END INSTALLATION
NAIL FIN



MULLION END INSTALLATION
THROUGH FRAME

ANCHOR SCHEDULE				
METHOD	SUBSTRATE	ANCHOR TYPE	MIN. EMBEDMENT	MIN. EDGE DISTANCE
NAIL FIN	WOOD: MIN. S.G. = 0.55	#8 PAN HEAD WOOD SCREW	3/4"	1/2"
	STEEL: MIN. 16 GA., MIN. Fy = 36 ksi	#8 GRADE 5 PAN HEAD SELF-DRILLING/ SELF-TAPPING SCREW	3 THREADS MIN PENETRATION BEYOND METAL	1/2"
	ALUMINUM: MIN. 1/8" THICK, MIN. 6063-T5			
THROUGH FRAME - HEAD	WOOD: MIN. S.G. = 0.55	#10 WOOD SCREW	1-1/2"	1"
THROUGH FRAME - JAMB & SILL	WOOD: MIN. S.G. = 0.55	#8 WOOD SCREW	1-1/2"	3/4"
THROUGH FRAME - HEAD, JAMB, & SILL	STEEL: MIN. 16 GA., MIN. Fy = 36 ksi	#8 GRADE 5 SELF-DRILLING/ SELF-TAPPING SCREW	3 THREADS MIN PENETRATION BEYOND METAL	1/2"
	ALUMINUM: MIN. 1/8" THICK, MIN. 6063-T5			
	CONCRETE: MIN. f'c = 3000 psi	3/16" ITW TAPCON	1"	1-1/2"
	MASONRY: CMU per ASTM C90, MIN. 2000 PSI		1"	2"

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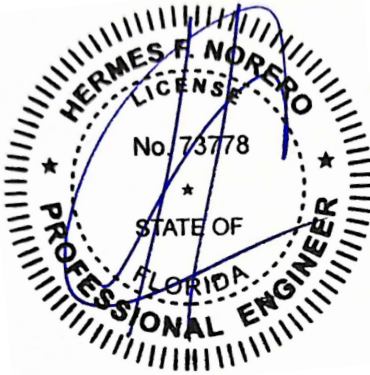
INSTALLATION DETAILS AND NOTES

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BUILDING DROPS

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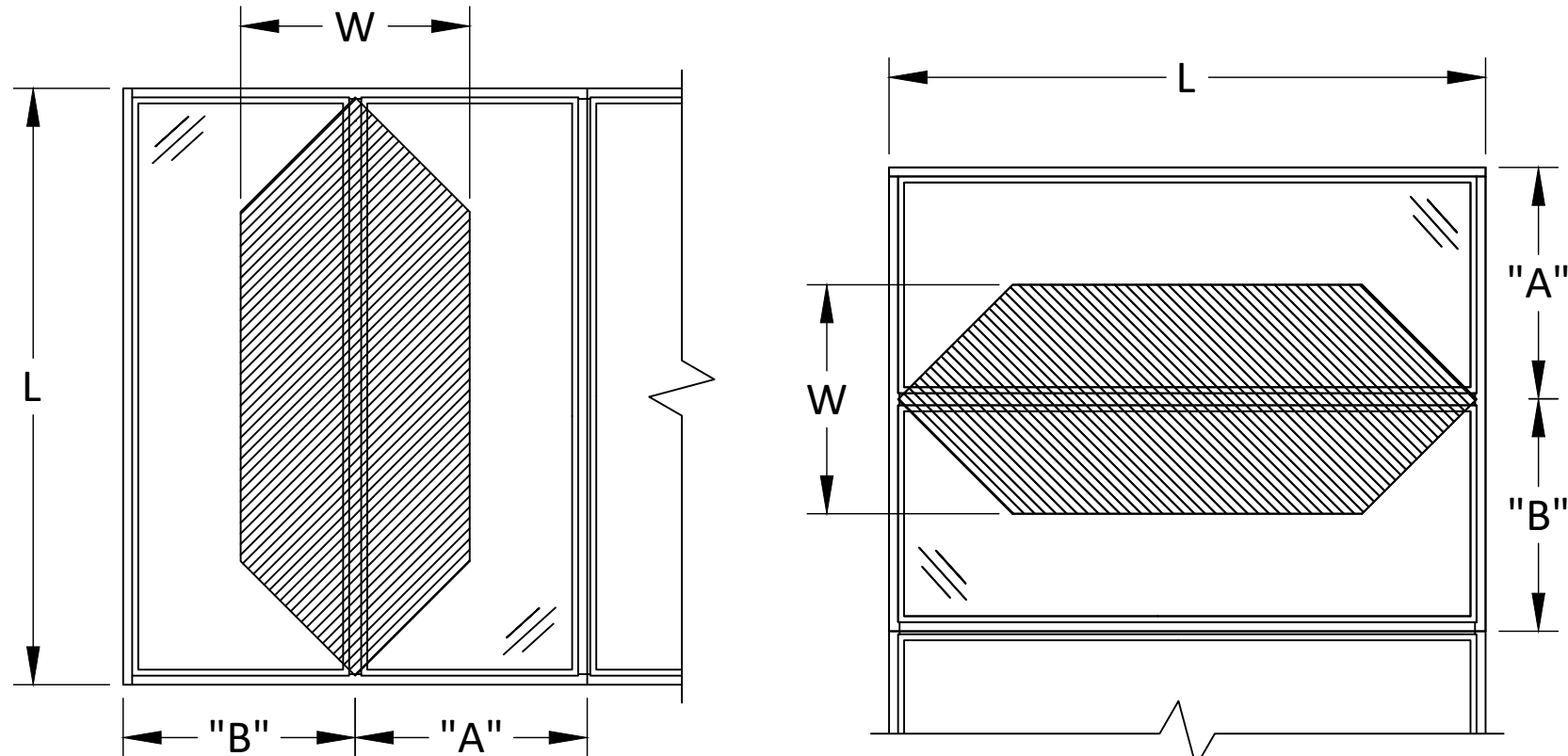
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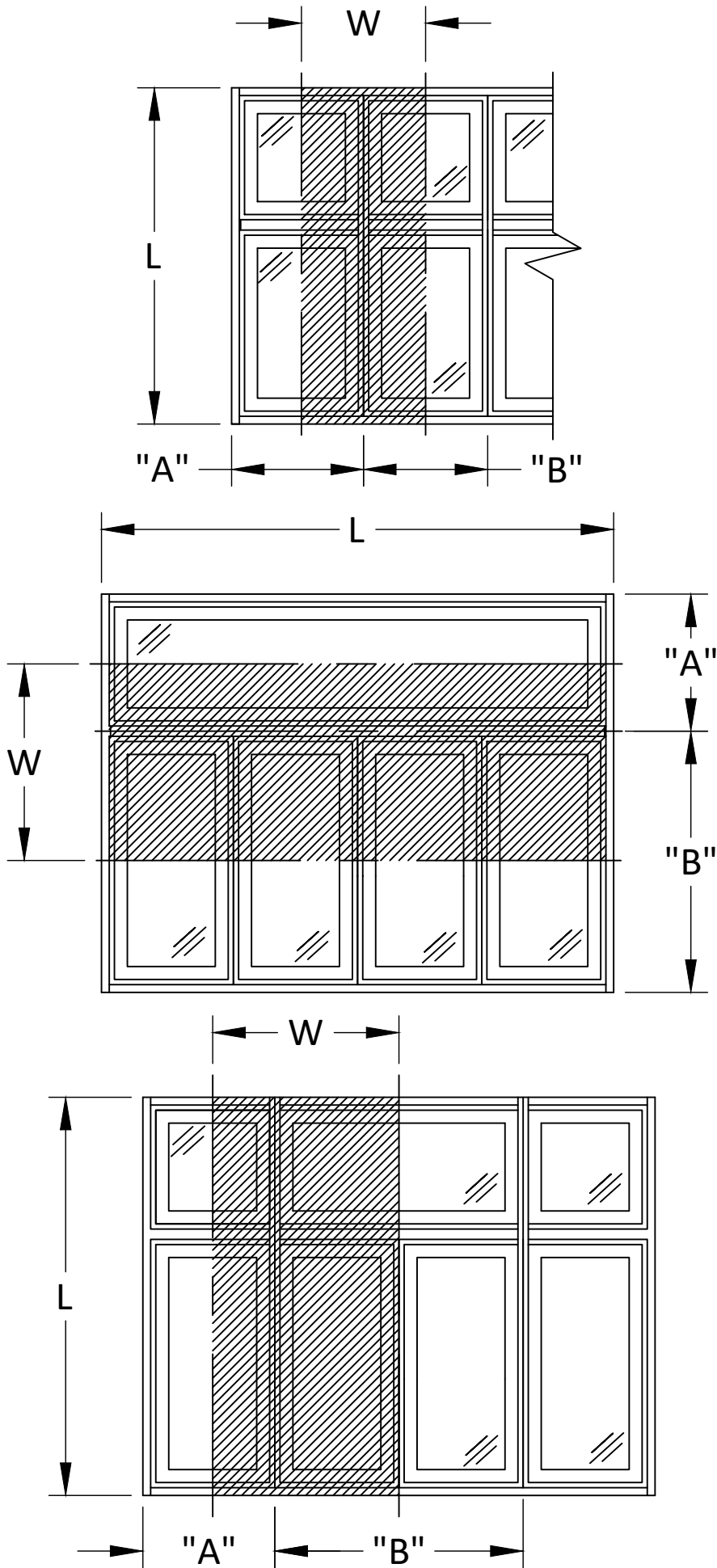
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ONE-WAY AND TWO-WAY MULLION DESIGN PRESSURE CAPACITY TABLE (PSF)											
L - MULL LENGTH (IN.)	W - TRIBUTARY WIDTH (IN.)										
	24	27	30	33	36	39	42	45	48	51	54
48	50.00	50.00	50.00	50.00	50.00	50.00	50.00	50.00	50.00	50.00	50.00
54	50.00	50.00	50.00	50.00	50.00	50.00	50.00	50.00	50.00	-	-
60	50.00	50.00	50.00	50.00	50.00	50.00	50.00	-	-	-	-
66	50.00	50.00	50.00	50.00	50.00	50.00	-	-	-	-	-
72	50.00	50.00	50.00	50.00	50.00	-	-	-	-	-	-
78	50.00	50.00	47.19	42.90	-	-	-	-	-	-	-
84	47.23	41.98	37.78	-	-	-	-	-	-	-	-
90	38.40	34.13	-	-	-	-	-	-	-	-	-
96	31.64	28.13	-	-	-	-	-	-	-	-	-
102	26.38	-	-	-	-	-	-	-	-	-	-
108	22.22	-	-	-	-	-	-	-	-	-	-

- NOTE:
- MULLION CHART APPLIES TO REINFORCED MULLION ASSEMBLIES, WHEN MULLED IN ONE-WAY, STACK OR RIBBON, OR TWO-WAY, 'X' OR 'T' CONFIGURATIONS.
 - DESIGN PRESSURE VALUES ARE POSITIVE AND NEGATIVE IN PSF.
 - MAXIMUM DEFLECTION HAS BEEN LIMITED TO L/175.
 - DESIGN PRESSURE OF ASSEMBLY IS LIMITED TO THE LESSER DESIGN PRESSURE OF THE MULLION ASSEMBLY OR THE INDIVIDUAL UNIT OF INSTALLATION. ADJACENT WINDOWS SHALL BE UNDER SEPARATE FL APPROVAL.
 - MULLION CHART APPLIES TO THE FOLLOWING INSTALLATION CONDITIONS:
INSTALLATION METHODS TO 2X WOOD, METAL STUD, GROUT FILLED OR HOLLOW BLOCK, OR CONCRETE.
 - TRIBUTARY WIDTH 'W' = (A+B)/2
 - REFER TO SHEET 3 FOR INSTALLATION DETAILS.
 - WHEN WINDOWS ARE STACKED VERTICALLY, THE MANUFACTURER/INSTALLER SHALL ENSURE THAT THE WEIGHT OF UNITS ABOVE WILL NOT CAUSE DEFLECTIONS OR STRESSES WHICH WILL AFFECT OPERATION OR STRUCTURAL ADEQUACY OF UNITS BELOW.



ONE-WAY MULLION CONFIGURATIONS



TWO-WAY MULLION CONFIGURATIONS



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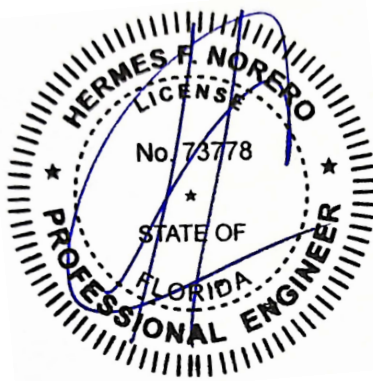
DESIGN PRESSURE TABLE

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